

**Notice of Allowability**

Application No.	Applicant(s)
10/767,073	TANAKA ET AL.
Examiner	Art Unit:
Daniel R. Sellers	2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTO-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to 11/20/07.
2.  The allowed claim(s) is/are 40-43.
3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All b)  Some\* c)  None of the:
    1.  Certified copies of the priority documents have been received.
    2.  Certified copies of the priority documents have been received in Application No. 09/195,100.
    3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.

## DETAILED ACTION

### *Terminal Disclaimer*

1. The terminal disclaimer filed on 11/20/07 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of 7,260,045 has been reviewed and is accepted. The terminal disclaimer has been recorded.

### *Allowable Subject Matter*

2. **Claims 40-43** are allowed.
3. The following is an examiner's statement of reasons for allowance:
4. The prior art does not teach or suggest the features in claims 40-43.
5. Regarding **claim 40**, the prior art does not teach or suggest the feature, wherein:  
"... the second sampling frequency (fs2) being assigned to each of the channels in the second channel group, the bit shift having a quantity common to the channels in the second channel group;  
the audio title set (ATS) including data representing the first sampling frequency (fs1) and the second sampling frequency (fs2), data representing the quantity of the bit shift and channel assignment information for identifying the channels in the first channel group and the channels in the second channel group;..."

McPherson et al., US 6,173,022 B1, teaches audio data on a Digital Versatile Disc (DVD), which is similar to the ATS on an optical audio disc. McPherson does not teach an ATS, or a video title set (VTS), which comprise a DVD video feature, but

teaches a group of audio tracks intended for use on any DVD including audio (column 2, lines 47-53). It would have been obvious for one of ordinary skill in the art at the time of the invention to use the teachings of McPherson for an ATS, wherein McPherson teaches audio channels having different resolutions, including sampling frequencies (column 2, line 53 - column 3, line 5). McPherson also teaches an obvious grouping of channels, wherein the front channels comprise one group with one sampling frequency and the subwoofer and rear channels comprise a second group with a different frequency (column 2, lines 19-35). However, McPherson does not disclose a bit shift quantity for either group of channels, and does not teach an ATS including data representing this feature.

Jang, US 5,263,092 A, teaches a prior art digital volume control, wherein bit shifting can occur (column 1, lines 11-24). Jang teaches a bit shift for attenuation, but it is well known that a bit shift in the opposite direction is used for gain. Regardless of the fact that bit shifts to the right or left, with respect to a LSB, are well known, it would not have been obvious to combine this teaching with an ATS including data representing a bit shift with respect to a second channel group. Therefore, claim 40 is allowable.

6. Regarding **claims 41-43**, see the preceding argument with respect to claim 40. The claims are allowable for the same reasons.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel R. Sellers whose telephone number is 571-272-7528. The examiner can normally be reached on Monday to Friday, 9am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571)272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



SINH TRAN  
SUPERVISORY PATENT EXAMINER

DRS